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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )

Calling Party Pays Service )

Option in the Commercial )

Mobile Radio Services )

WT Docket No. 97-207

DOCKET FILE COPY ORIGINAL

Comments of Illuminet, Inc.

Illuminet, Inc. ("Illuminet")<sup>1</sup> hereby responds to the October 23, 1997 Notice of Inquiry issued by the Federal Communications Commission ("FCC") in the above-captioned matter.<sup>2</sup> Illuminet comments solely on the technical issues raised by the NOI regarding calls that are uncollectible or unbillable, and call branding. As discussed below, and assuming that Calling Party Pay ("CPP")

<sup>1</sup> Illuminet provides a wide variety of services to local exchange carriers, interexchange carriers, wireless carriers, and competitive local exchange carriers. Illuminet's services include Signalling System No. 7 ("SS7") network functions and related line information database ("LIDB") services, calling card billing validation services, 800 RESPORG services and revenue administration, and other related database services. In addition, Illuminet has provided billing and collection clearinghouse services since the mid-1980s. Illuminet's wireless clearinghouse services are anticipated to begin in early 1998. Illuminet also actively addresses telecommunications industry issues by participating in associations and forums such as the Cellular Telecommunications Industry Association, the National Calling Party Pays Forum, the Carrier Liaison Committee, the National Services Advisory Committee, and the Ordering and Billing Forum ("OBF"). With respect to wireless-related activities, Illuminet also provides its "Roamer On-line Support Services" ("ROSS") and its "Cellular Administration and Operations Support Services" ("CAOS") products to assist Commercial Mobile Radio Service ("CMRS") providers in establishing roaming arrangements and in managing arrangements for seamless roaming in new markets. The CAOS product includes interoperability testing, centralized data management, and fixed-schedule information updates.

<sup>2</sup> In the Matter of Calling Party Pays Service Option in the Commercial Mobile Radio Services: Notice of Inquiry, WT Docket No. 97-207, FCC 97-341 (rel. Oct. 23, 1997) ("NOI").

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services are deemed to be in the public interest, Illuminet believes that the technical functions associated with these aspects of CPP services can be addressed based on an expanded version of the current LIDB platform, utilization of existing billing and collection capabilities, and further industry coordination. Illuminet also submits that call branding issues can be addressed through existing network solutions. Illuminet submits that CPP should be provided in a manner in which call control is dependent on existing and emerging technologies and standards that utilize TCAP protocol and databases.<sup>3</sup>

The ISUP protocol<sup>4</sup> does not need to be changed to provide CPP, and, in fact, material changes to the ISUP protocol would unduly impact that industry. Any proposed solution that relies solely on changes to the ISUP protocol would negatively affect every carrier financially and operationally by requiring ISUP modifications in all switches, thereby requiring significant, but unnecessary, costs to be incurred and operational issues to be addressed. Moreover, Illuminet anticipates that ongoing number administration would also be prohibitively difficult and expensive due to the need to update both new and existing subscriber information and/or to reflect changes in the customer-specific ISUP parameters.

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<sup>3</sup> "TCAP" or "Transaction Capabilities Application Part" provides, in part, the network signalling information necessary to access network information databases.

<sup>4</sup> "ISUP" or "ISDN User Part" provides network control features associated with the network connection between the calling and called party.

Accordingly, on an overall basis, Illuminet submits that CPP deployment would be supported in a more efficient and less expensive manner through minor enhancements to standards and network functions that utilize the TCAP protocol. By relying on the TCAP protocol, only those carriers that provide CPP services would be affected, not the originating or billing entity.

However, regardless of the technical solution available to address calls that are uncollectible or unbillable, and call branding, the Commission must ensure the development of industry standards and procedures that provide for the delivery of the telephone number and related billing information of both the calling party and the called party to the carriers involved in the processing of the call. This information, which ensures that the carriers have available the necessary information to process calls prior to allowing them to be completed, reduces the risk of calls that are uncollectible or unbillable. Accordingly, provision of this billing information, along with the existing necessary SS7 network capabilities, is a prerequisite to the development of any CPP solution.

Illuminet provides technological solutions that enable all carriers, including small and independent telephone companies and wireless carriers, to participate economically in the evolving telecommunications industry. In furtherance of this goal, Illuminet participates actively in the National Calling Party Pays Forum ("NCPFF"), and assisted in drafting the recommended

requirements for the exchange, billing, and collection of CPP messages. As part of this effort, Illuminet investigated the requirements for utilizing its wireline and wireless clearinghouses to support CPP services, including message exchange and settlement among multiple carriers involved in a single call.

Based on this investigation, Illuminet concludes that a comprehensive CPP clearinghouse approach would be efficient to resolve many of the CPP-related technical issues presented by the NOI. While the Commission has expressed concern that, in the absence of a CMRS carrier having access to billing and collection information, the CMRS carrier would run the risk of "uncollectibles" with CPP services,<sup>5</sup> Illuminet submits that this concern can be addressed using the "clearinghouse" solution suggested above. In fact, Illuminet is capable of offering such clearinghouse functions that will ensure:

- Processing of multiple record formats (e.g., EMI/EMR<sup>6</sup> processing currently, CIBER message<sup>7</sup> processing by first

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<sup>5</sup> Id. at para. 23.

<sup>6</sup> EMI/EMR or "Electronic Message Interface/Electronic Message Record" is an industry standard format that facilitates the transfer of billing related information among Interexchange Carriers ("IXCs") and Local Exchange Carriers ("LECs"), and is maintained and administered by the OBF and Bellcore.

<sup>7</sup> CIBER or "Cellular Intercarrier Billing Exchange Roamer" format is an industry standard format that facilitates the transfer of billing related information among cellular telephone companies. The CIBER format is maintained and administered by CIBERNET Corp.

quarter of 1998, and NA TAP II message<sup>8</sup> processing by mid-1998) and forwarding or rejecting them in a format readable by the recipient;

- Processing billing messages received via magnetic tape or electronically; and
- Reducing the administrative burden of carriers' establishing and maintaining individual CPP billing and collections contracts across both the wireline and wireless industry.

Using this model, the clearinghouse would receive those CPP messages requiring inter-carrier exchange, process the messages per industry standards, and reject or forward the messages to the appropriate company for billing. The underlying processing and settlement capabilities exist today, and Illuminet's clearinghouse can be readily expanded to provide such processing as CPP message volumes grow. The clearinghouse would offer CPP clearing services to both wireless and wireline carriers. Additionally, the clearinghouse would establish billing and collection relations with other clearinghouses in order to ensure that each will have the complete means of billing and collection for all wireline and wireless carriers if that option is selected by the carrier. Consequently, all necessary billing records are available to the party responsible for billing the call.

Illuminet recognizes that procedural issues must be addressed and resolved within the clearinghouse model. However, Illuminet

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<sup>8</sup> NA Tap II or the "North American Transfer Account Procedure" is a slightly modified versions of the european format that facilitates the transfer of billing related information among GSM carriers.

submits that the clearinghouse model could be an efficient solution that addresses the concerns raised by the Commission. First, combining various features offered through existing services, including message clearing, SS7 message transport, and SS7 database services, can facilitate the nationwide implementation of CPP, if such service is found to be in the public interest. Second, Illuminet believes that this solution could be implemented efficiently by the industry because this solution relies upon existing technology for the associated processing of the call and relaying of information necessary to bill the call. Third, the clearinghouse solution eliminates the need for all affected parties to access the billing information of the calling and called parties. Finally, Illuminet's proposed clearinghouse, enhanced database services, and easily made modifications to existing SS7 and clearinghouse standards may eliminate the need for deploying Advanced Intelligent Network ("AIN") technology.

Likewise, Illuminet recognizes that the clearinghouse model will not resolve all issues related to billing the appropriate party. However, Illuminet submits that the actual occurrences of "leakage," i.e., uncollectible and/or unbillable CPP calls, can be reduced through the combination of clearinghouse services and the use of an expanded LIDB to include CMRS customer information, i.e.,

a Wireless Information Database ("LIDB/WIDB").<sup>9</sup> This approach will ensure that the calling party number and the "called-to" number are available throughout the call; an element crucial to reducing the risk of leakage.<sup>10</sup>

With respect to call branding, Illuminet questions whether the need for AIN is overstated.<sup>11</sup> In Illuminet's view, AIN triggering and message set functionalities are not necessarily required to address "branding" of the calls. Rather, Illuminet submits that new standards or modifications to existing standards can be developed or implemented in a manner that allows the Home Location Register ("HLR") to perform the necessary operations.<sup>12</sup> With HLR, implementation of Integrated Voice Response Units can be

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<sup>9</sup> For example, the NCPPF has determined that "leakage" may occur under certain CPP deployment scenarios where: (a) IXC calls that are originated and terminated within the same LEC; (b) Local and intraLATA calls that originate in the service area of one LEC and terminate in the service area of another LEC; (c) IXC carried calls that originate in the service area of one LEC and terminate in the service area of a different LEC; or (d) LEC billing restrictions, i.e., coin-originated calls. NCPPF Task Force Report, National Calling Party Pays Billing Requirements, at 2 (Aug. 28, 1997).

<sup>10</sup> As the Commission is aware, LIDB queries can be used for screening services that indicate how calls are to be billed. This function, in Illuminet's view, can be expanded to include the CMRS carrier's customer information through the LIDB/WIDB. When queried, the LIDB/WIDB should be able to provide the response necessary to resolve questions regarding any existing billing or service restrictions.

<sup>11</sup> NOI at para. 24.

<sup>12</sup> The HLR determines whether a given call should continue to proceed or be reverted to some other form of default call treatment, such as a recorded announcement.


provisioned with branding, without altering the integrity of the standard voice prompt/alert structure. Further, Personal Identification Number technologies and Selective Call Acceptance methodologies can be developed to support the ability of a caller to bypass normal CPP billing systems, and proceed directly to call completion in a normal fashion.

As demonstrated above, Illuminet believes that an efficient technical solution can be developed to address the uncollectible, unbillable, and call branding issues associated with the provision of CPP services, if CPP is determined to be in the public interest. The Illuminet "clearinghouse" model relies upon an expanded LIDB to provide the necessary service and billing restriction information that addresses most issues related to these Commission concerns. With additional industry work and coordination, Illuminet is confident that these issues can be further addressed and resolved.

Respectfully submitted,

**Illuminet, Inc.**

By:

  
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December 16, 1997



**CERTIFICATE OF SERVICE**

I, Colleen von Hollen, do hereby certify that on the 16th day of December 1997, a copy of the attached Comments of Illuminet, Inc., in WT Docket No. 97-207, was hand-delivered to the following parties:

  
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